

Work Order ID 165575

Monday, August 28, 2017 11:43:11 AM

165575

Page 1

Item ID: D3884-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Saddle, Inside LH

Start Date: 9/27/2017 Start Qty: 8.00

8

Cust Item ID:

Required Date: 10/3/2017 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals:

Process Plan:

DAS
21
9-89Date: **AUG 29 2017**

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3884

C

100

1.99

100

HAAS CNC VERTICAL MACHINING #1

4.58

HAAS 1

Memo

Program Batch No. _____

Double check by: _____

1-Machine Step No 1 per Folio FA818 and inspect per attached Dimension Sheets

2-Machine Step No 2 per Folio FA818 and inspect per attached Dimension Sheets

3-Machine Step No 3 per Folio FA818 and inspect per Dimension Sheets

110

0.00

110

QC

QC1- Inspection performed by CMM

0.08

Memo

Inspect on CMM as per folio CMMA004.

DWG REV: _____

CMM PROG. REV: _____

Quality Control

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Hand Finishing

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Monday, August 28, 2017 11:43:11 AM

Setup Start ***NS1***

Revision ID:

Stop *NS2*

Cust Item ID:

Customer:

Reference:

Run Start *NR1*

Stop *NR2*

**Insp.
Stamp**

140

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

140

Memo

0.64

Powdercoat

Powder Coating

***MASK INSIDE SURFACES OF SADDLE PRIOR TO APPLICATION OF
POWDER COAT AS PER INDICATED ON DWG (SEE NOTE 2)***

DO NOT MASK INSIDE FLANGE SURFACE

START TIME: _____
OVEN TEMPERATURE: _____
FINISH TIME: _____

150

QC3- Inspect Part Finish

0.00

150

Memo

0.08

QC

Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, August 28, 2017 11:43:14 AM

Work Order ID: 165575

165575

Parent Item: D3884-1

D3884-1

Parent Item Name: Saddle, Inside LH

Start Date: 9/27/2017

Required Date: 10/3/2017

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP RevA: New issue DD verified by:EC
15.05.20 remove inside powdercoat DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-017		Manufactured	No			100	Each	17.0000	1	8			
D6101-017									**				
Saddle Billet													

Location

Loc Qty

Loc Code

MAT046

17

155443

7

~~162575~~

10

_____ 

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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OTHER :					

DART AEROSPACE LTD		Work Order:	165575
Description: Saddle, Inboard, LH		Part Number:	D3884-1
Inspection Dwg: D3884 Rev. C		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	2.870	2.880							
B	1.433	1.443							
C	0.638	0.658							
D	3.895	3.905							
E	0.257	0.262							
F	0.605	0.625							
G	1.120	1.130							
H	2.245	2.255							
I	2.000	2.020							
J	0.140	0.175							
K	1.265	1.285							
L	0.115	0.135							
M	0.240	0.260							
N	0.110	0.140							
O	0.240	0.260							
P	2.826	2.886							
Q	0.178	0.198							
R	0.140	0.165							
S	0.720	0.780							
T	1.220	1.280							
U	1.245	1.255							
V	5.990	6.010							
W	2.495	2.505							
X	0.490	0.510							
Y	0.020	0.040							
Z	0.313	0.318							
AA	0.760	0.765							
AB	0.215	0.220							
AC	0.316	0.321							
AD	1.745	1.755							
AE	0.990	1.010							
AF									
Accept/Reject									

Measured by:		Audited by:	
Date:		Date:	

Rev	Date	Change	Revised by	Approved
A	09.10.22	New Issue	KJ	
B	15.09.09	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order: 105575
Description: Saddle, Inboard, LH		Part Number: D3884-1
Inspection Dwg: D3884	Rev. C	Page 1 of 1

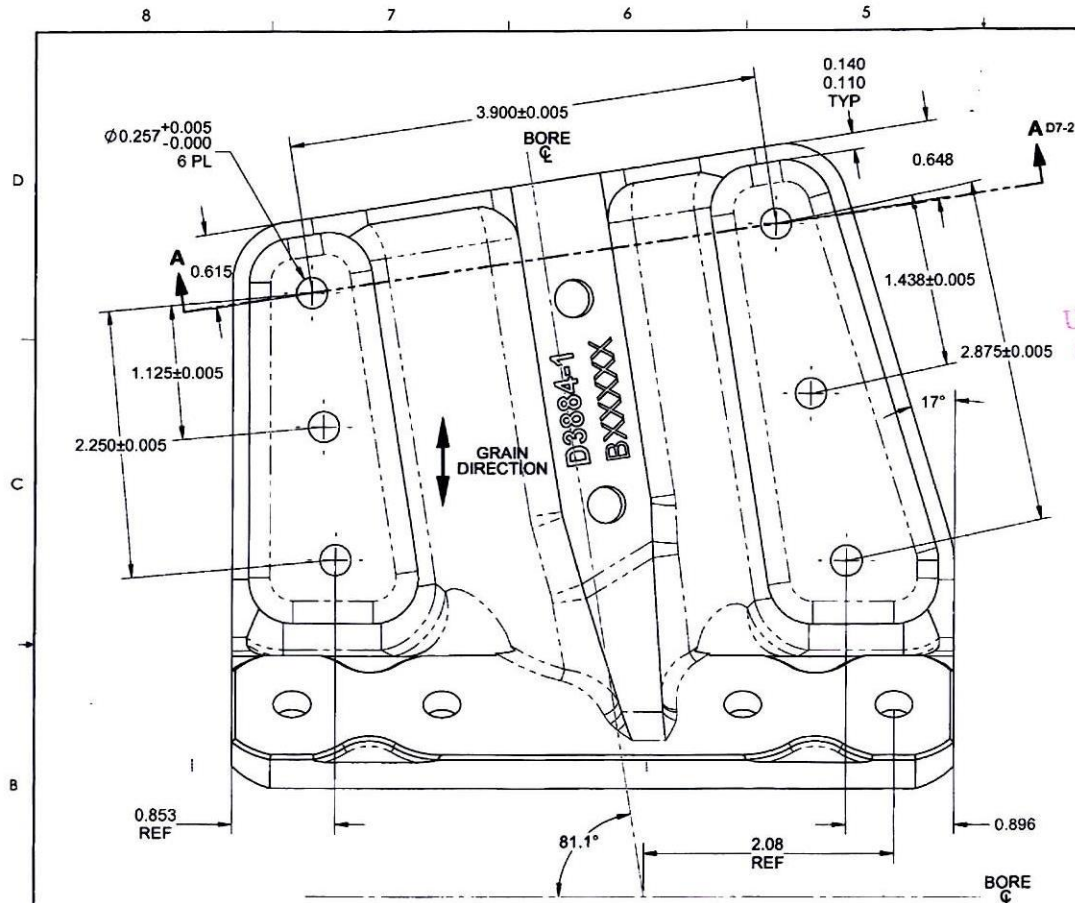
Inspect dimensions highlighted on inspection sheet drawing and record below:

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AF									
Accept/Reject									

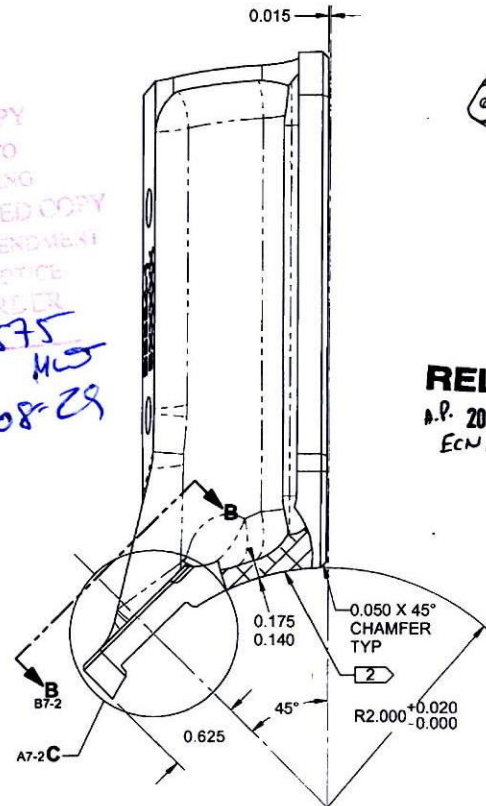
Measured by:	
Date:	

Audited by:	
Date:	

Rev	Date	Change	Revised by	Approved
A	09.10.22	New Issue	KJ	
B	15.09.09	Dwg Rev updated	KJ	



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 165575
MCS
1708-29



RELEASED
A.P. 2015 MAY 19
ECN15-575

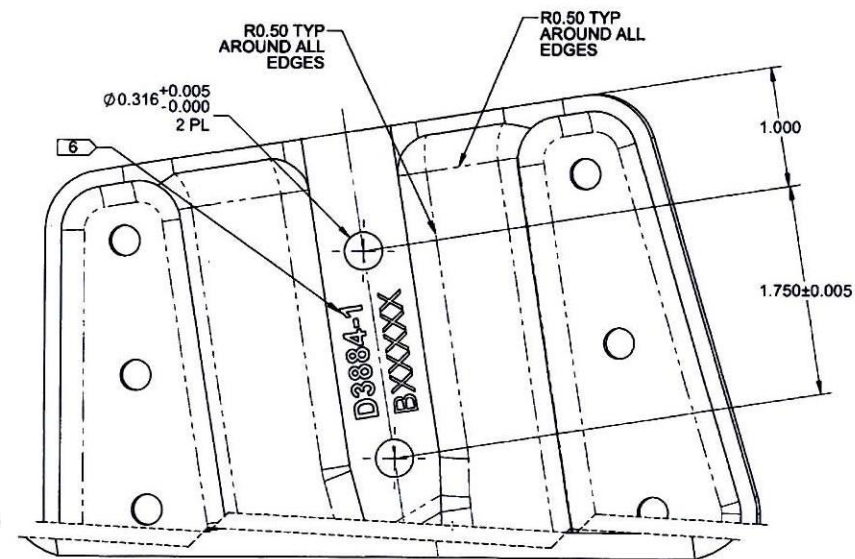
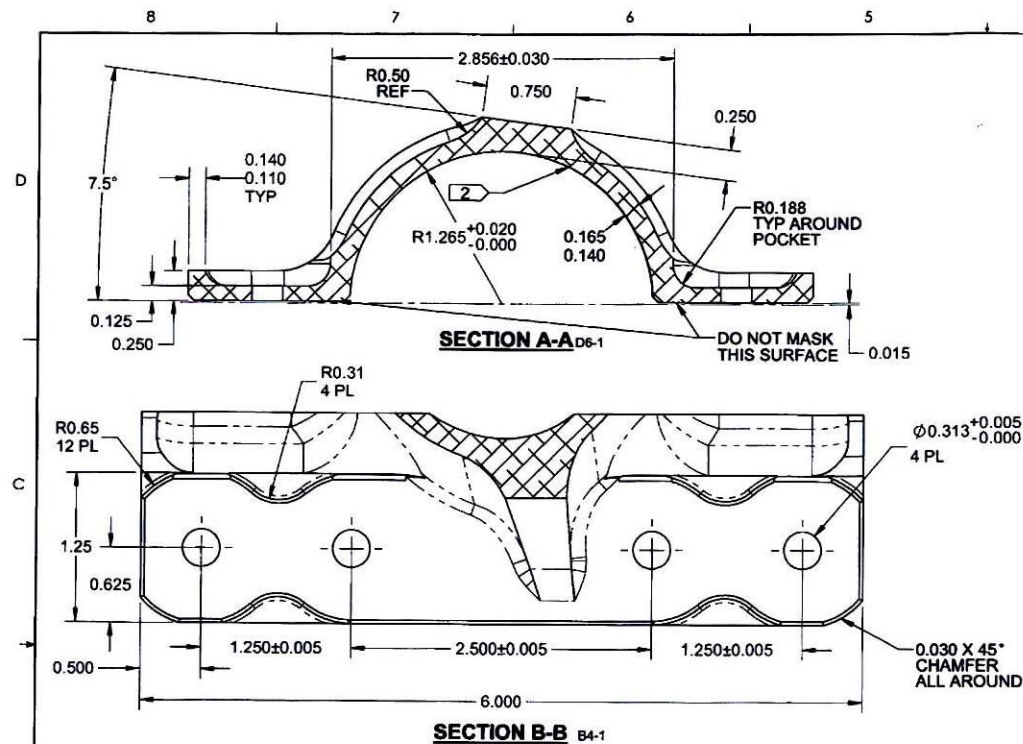
D3884-1 SADDLE, INBOARD LH

NOTES:

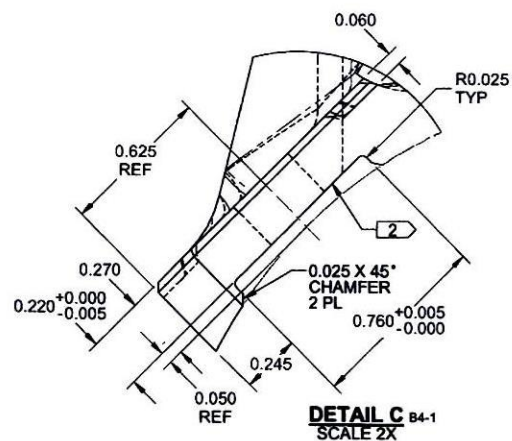
- 1) MATERIAL: 7075-T7351 ALUMINUM PER AMS-QQ-A-250/12, OR QQ-A-250/12 OR ASTM B209 (REF DART SPEC. D6101-015)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
MASK INSIDE SURFACES OF SADDLE PRIOR TO APPLICATION OF POWDER COAT
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO
MAX. DEPTH OF 0.010 WITH A MIN. TOOL RAD OF R0.010
- 7) WEIGHT: 1.03 lbs
- 8) ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD R0.250
- 9) ALL NON-DIMENSIONED FEATURES DEFINED PER DRAWING FILE "D3884-1-REVC.SLDPRIT"

C	GENERAL REDRAW & REMOVED UNNECESSARY DIMS; ADDED NOTE 9, REMOVED POWDER COAT FROM INSIDE SURFACE OF D3884-1/-2, ADDED D3884-2 TO SHT 3 & 4.	AP	15.02.11
B	D6101-017 WAS D6102-017, ZN A6-1; ADD NOTE ZN C4-2; ADD R0.031 ZN C2-2; INCREASED TOLERANCE 0.175 WAS 0.165 ZN B7-1; ADD 0.615 ZN C8-1; ADD 0.648 ZN C4-1; ADD 0.250 ZN D6-2; ADD 0.060 ZN C2-2; 0.75 WAS 0.65 ZN D7-2	RF	09.06.30
A	NEW ISSUE	RF	09.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	AP	DART AEROSPACE USA, INC. KENT, WA DRAWING NO. D3884 TITLE INBOARD SADDLE SCALE NTS COPYRIGHT © 2014 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	
DRAWN	AP		
CHECKED	AJS		
MFG. APPR.	JLM		
APPROVED	HS		
DE APPR.	DS	REV. C SHEET 1 OF 4 DATE 15.02.11	

APPROVED



D3884-1 SADDLE, INBOARD LH
(AUXILIARY VIEW)



RELEASED
A. 2015 MAY 19

APPROVED	DESIGN	AP	DART AEROSPACE USA, INC.	
	DRAWN	AP	KENT, WA	
	CHECKED	AJS	DRAWING NO.	REV. C
	MFG. APPR.	JLM	D3884	SHEET 2 OF 4
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	INBOARD SADDLE	NTS
	DATE	15.02.11	COPYRIGHT © 2014 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	